

Amendments to the Claims

Please amend the claims according to the following directions. Please replace all prior versions and listings of claims in this application with the following list of claims:

1-21. (cancelled)

22. (new) A method of handling a computer error at a firmware level, comprising:

- gathering information about a plurality of error events;
- formatting the gathered information as an error record, said error record including a record header delineating the beginning of the error record, and a variable number of sections, each section having a section header and a variable-length section body, wherein each section corresponds to one of the plurality of error events; and
- storing the error record in a non-volatile storage medium.

23. (new) The method of claim 22, wherein the record header includes:

- a monotonically increasing record identifier;
- a revision number;
- an error severity value;
- a time stamp; and
- a record length.

24. (new) The method of claim 22, wherein the section header includes:

- a global unique identifier corresponding to a specific device; and
- a section length field containing the length of the section.

25. (new) A machine-readable medium having stored thereon executable instructions that when executed by a processor, cause the processor to log computer errors at a firmware level by:

- receiving an error notification;
- gathering information about a plurality of outstanding error events;
- formatting the gathered information as a variable-length error record, said variable-length error record having a format including a record header delineating the beginning of the error

record, and a variable number of sections, each section having a section header and a variable-length section body, wherein each section corresponds to one of the plurality of error events;
storing the error record in a memory; and
when requested, outputting the error record to an agent.

26. (new) A method of logging computer errors in a computer system, comprising:

invoking a firmware error handler within the computer system, said firmware error handler receiving an indication of an error condition within the computer system;

collecting a plurality of device error states, each device error state including information describing the current operational condition of a peripheral device within the addressing range of a processor executing in the computer system;

assembling, within the firmware error handler, said plurality of device error states into a variable-length error record associated with the error condition, said variable-length error record having a format including a record header delineating the beginning of the error record, and a variable number of sections, each section corresponding to one of the plurality of device error states; and

storing the variable-length error record in a non-volatile memory.

27. (new) The method of claim 26, further comprising:

outputting the variable-length error record to an external agent, and freeing for reuse the memory associated with the variable-length error record.

28. (new) The method of claim 26, wherein the record header includes:

a record identifier; and

a record length.

29. (new) The method of claim 26, wherein the record header includes:

a severity value associated with the error condition; and

a time stamp associated with the error condition.

30. (new) The method of claim 26, wherein the record header includes:

a platform identifier associated with the computer system.

31. (new) The method of claim 26, wherein each section includes:
a unique identifier corresponding to the peripheral device associated with the section.
32. (new) The method of claim 31, wherein each section further includes error recovery information for the peripheral device associated with the section.
33. (new) A machine-readable medium having stored thereon executable instructions that when executed by a processor, cause the processor to log computer errors according to the method described by claim 26.